



## Iciliidae\*

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\* In: Lowry, J.K. & Myers, A.A. (Eds) (2009) Benthic Amphipoda (Crustacea: Peracarida) of the Great Barrier Reef, Australia. *Zootaxa*, 2260, 1–930.

## Abstract

One species of iciliid amphipod, *Icilius caledoniana* Watson, Lowry & Steinberg, 2004, is reported from the northern Great Barrier Reef, Queensland, Australia, living on the calcareous green alga, *Halimeda* sp.

**Key words:** Crustacea, Amphipoda, Iciliidae, Great Barrier Reef, Australia, taxonomy, *Icilius caledoniana*

## Introduction

Watson, Lowry & Steinberg (2004) recently revised the family Iciliidae. They reported one species from northern Borneo, one species from New Caledonia and five species from eastern Australia, but none from the Great Barrier Reef. In this paper we report one species, *Icilius caledoniana* Watson, Lowry & Steinberg, 2004, from the northern part of the Great Barrier Reef. Watson *et al.* (2004) showed that iciliids are suspension feeders. They are often found living on finger sponges which act as an excellent feeding platform. In this case *I. caledoniana* was found living on the green calcareous alga, *Halimeda* sp.

## Materials and methods

The descriptions were generated from a DELTA database (Dallwitz 2005) to the iciliid species of the world. All material collected by epibenthic sled and lodged in the Australian Museum, Sydney (AM). A set of colour plates, a list of standard abbreviations and detailed station data is available in Lowry & Myers (2009). A CD (*Benthic Amphipoda (Crustacea: Peracarida) of the Great Barrier Reef: Interactive Keys*) is available with the book or the keys can be accessed at the crustacea.net website.

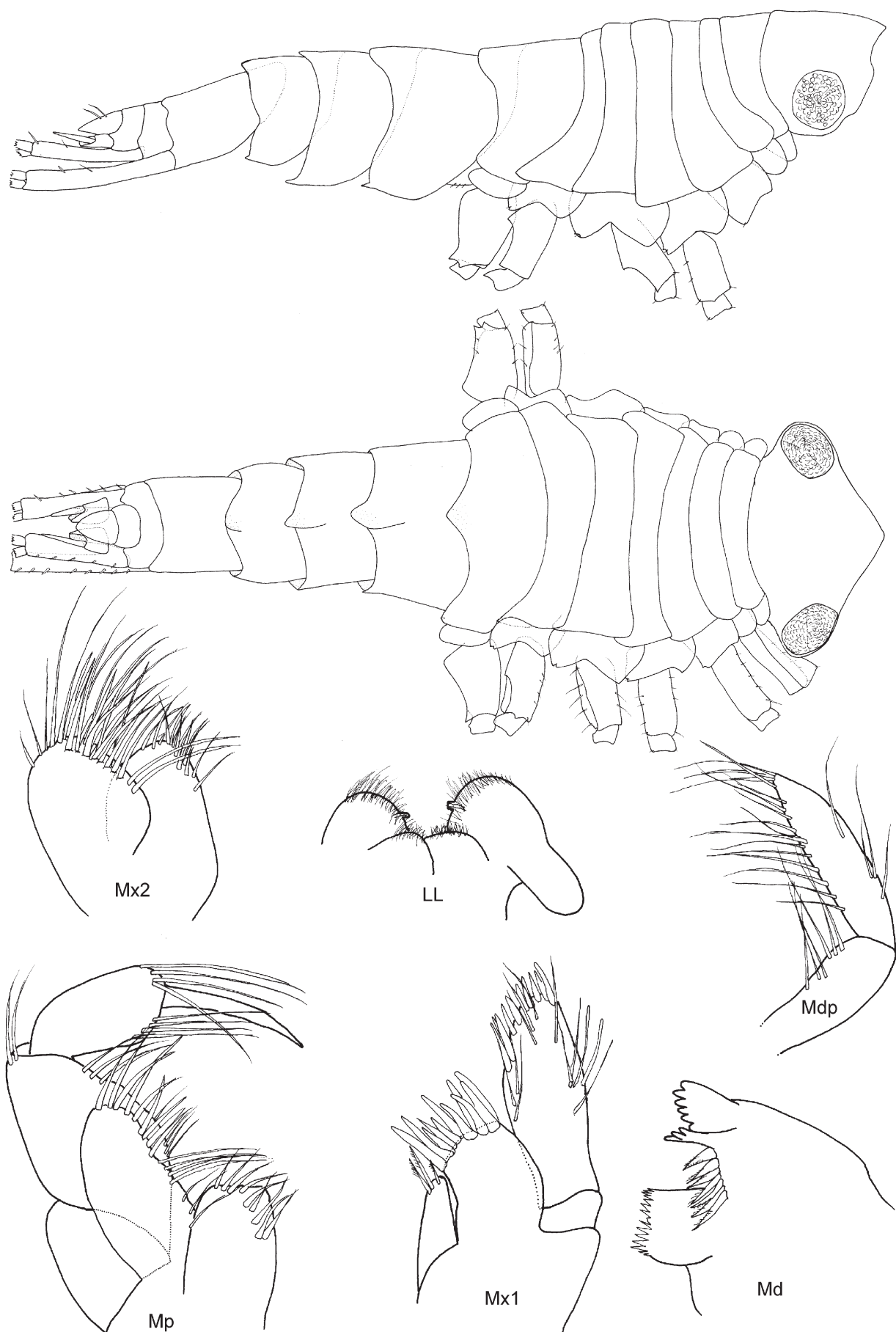
## Iciliidae Dana, 1849

### *Icilius* Dana, 1849

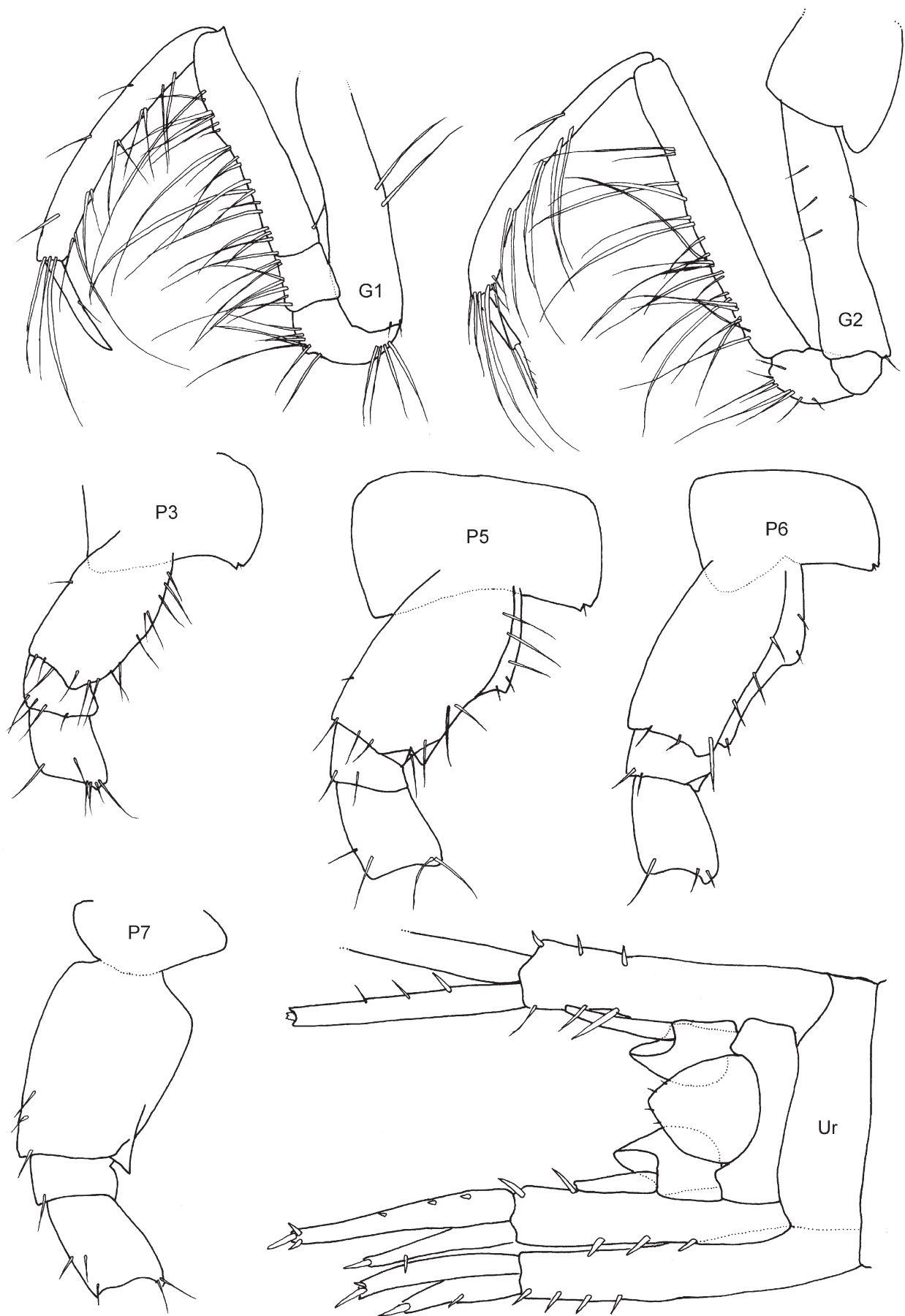
#### *Icilius caledoniana* Watson, Lowry & Steinberg, 2004

(Figs 1, 2)

*Icilius caledoniana* Watson, Lowry & Steinberg, 2004: 476, figs 7–8.



**FIGURE 1.** *Icilius caledoniana* Watson, Lowry & Steinberg, 2004, female habitus, 2.5 mm AM P75503; female, 3.0 mm, AM P75502, between Lizard Island and Carter Reef, Great Barrier Reef.



**FIGURE 2.** *Icilius caledoniana* Watson, Lowry & Steinberg, 2004, female, 3.0 mm; AM P75502, between Lizard Island and Carter Reef, Great Barrier Reef.

**Material examined.** 1 female, 3.0 mm, 3 slides, AM P75502 (JML 81/26-11-4); 1 female, 2.5 mm, AM P75503 (JML 81/26-11-4); 43 females, AM P75504 (JML 81/26-11-4).

**Type locality.** Off l'Îlot Maitre, Southwest Lagoon, New Caledonia (22°19.61'S 166°24.7'E), living on the calcareous green alga *Halimeda* sp., 10.5 m depth.

**Description.** Based on female, 3.0 mm, AM P75502.

**Head.** Head rostrum rounded. *Antenna 1* peduncular article 1 longer than (1.19 x) article 2; accessory flagellum present, accessory flagellum 1-articulate; flagellum 29+ articles. *Antenna 2* flagellum 28+ articles. *Mandible* left incisor with 5 serrations, right incisor with 6 serrations; accessory setal rows: left with 8 setae, right with 9 setae; molar, triturating surface well developed basally; palp article 2 slender, length 4 x breadth, 1.1 x article 3; article 3 slender, straight, slightly falcate distally. *Upper lip* apically notched, setose. *Lower lip* inner lobes present; outer lobes entire; mandibular lobes rounded apically. *Maxilla 1* inner plate with 4 apical pappose setae; outer plate with 11 setal-teeth; palp with 8 apical robust setae and many subapical slender setae.

**Pereon.** *Pereonite 7* posterodorsal margin with large mid-dorsal bulge, without setae along posterior margin. *Gnathopods 1 and 2* not sexually dimorphic; simple with long, slender setae along posterior margin. *Gnathopod 1* basis 0.9 x carpus length; carpus subequal in length to propodus length. *Gnathopod 2* basis 0.8 x carpus length; carpus 1.2 x propodus length. *Pereopods 3–4* sexually dimorphic; similar in size to pereopods 5–6; simple; basis without midmedial row of vertical pappose setae, without submarginal row of robust setae, without marginal row of pappose setae. *Pereopod 3* carpus length 2.4 x breadth; propodus length 4.3 x breadth, 1.6 x carpus length, with 2 rows of posterodistal robust setae. *Pereopod 4* carpus length 3.2 x breadth; propodus length 5.3 x breadth, propodus 1.4 x carpus length, with 2 rows of posterodistal robust setae. *Pereopod 5* coxa with rounded posteroventral corner; basis length 2.8 x breadth, basis with weakly setose posterior margin; carpus with well developed anterodistal bump, with weakly setose posterior margin; propodus length 7.3 x breadth, propodus with weakly setose posterior margin. *Pereopod 6* coxa with subacute posterodistal corner; basis length 1.9 x breadth, basis with weakly setose posterior margin; carpus with well developed anterodistal bump, with weakly setose posterior margin; propodus length 3.5 x breadth, propodus with weakly setose posterior margin. *Pereopod 7* coxa with rounded posteroventral corner; basis length 1.7 x breadth, basis with rounded posterodorsal corner, with weakly setose posterior margin, posteroventral corner bicuspidate, outer cusp much longer than inner; carpus with well developed anterodistal bump, with weakly setose posterior margin; propodus length 9.4 x breadth, propodus with weakly setose posterior margin.

**Pleon.** *Pleonite 1* posterodorsal margin with mid-dorsal spine, pleonite 1 without setae along posterior margin, posterolateral margins without spines. *Pleonite 2* with mid-dorsal spine, without setae along posterior margin, posterolateral margin without spines. *Pleonite 3* smooth, without spines or bulges, without setae along posterior margin, posterolateral margin without spines. *Urosomite 1* short, less than 2 x length of urosomite 2. *Uropod 1* outer ramus 0.9 x inner ramus. *Uropod 2* outer ramus 0.6 x inner ramus. *Uropod 3* peduncle with well developed distomedial flange; outer ramus 0.4 x inner ramus; inner ramus without proximal setal fan. *Telson* longer than broad, tapering distally, with tiny apical setae.

**Habitat.** Living in algae and sediment, 32–38 m depth.

**Remarks.** This is the first record of *I. caledoniana* from Australia and the only record of the genus from the Great Barrier Reef.

**Distribution.** *Australia.* Queensland: Carter Reef, Lizard Island (current study). *New Caledonia.* Southwest Lagoon (Watson, *et al.* 2004).

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